

METHOD AND APPARATUS FOR ETCHING AND DEPOSITION USING MICRO-PLASMAS

ABSTRACT OF THE DISCLOSURE

- Plasma etching or deposition is performed over substrates using
- 5 spatially localized micro-plasmas operating in parallel with each other. A plasma generating electrode is positioned closely adjacent to an exposed surface of the substrate, as on the surface of a dielectric layer applied to the substrate. A selected pressure of the gas in the region of the electrode and the substrate is established, and a voltage is applied between the plasma generating electrode and the substrate
- 10 or a second electrode to ignite a plasma in the region between the plasma generating electrode and the substrate for a selected period of time. This plasma is limited to the region of the plasma generating electrode adjacent to the exposed surface so that the substrate is plasma treated in a desired pattern.

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